

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/085543 A1

(51) International Patent Classification⁷: E04B 1/98,
E04H 9/00, 9/02

(21) International Application Number:
PCT/CA2005/000339

(22) International Filing Date: 3 March 2005 (03.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/549,172 3 March 2004 (03.03.2004) US

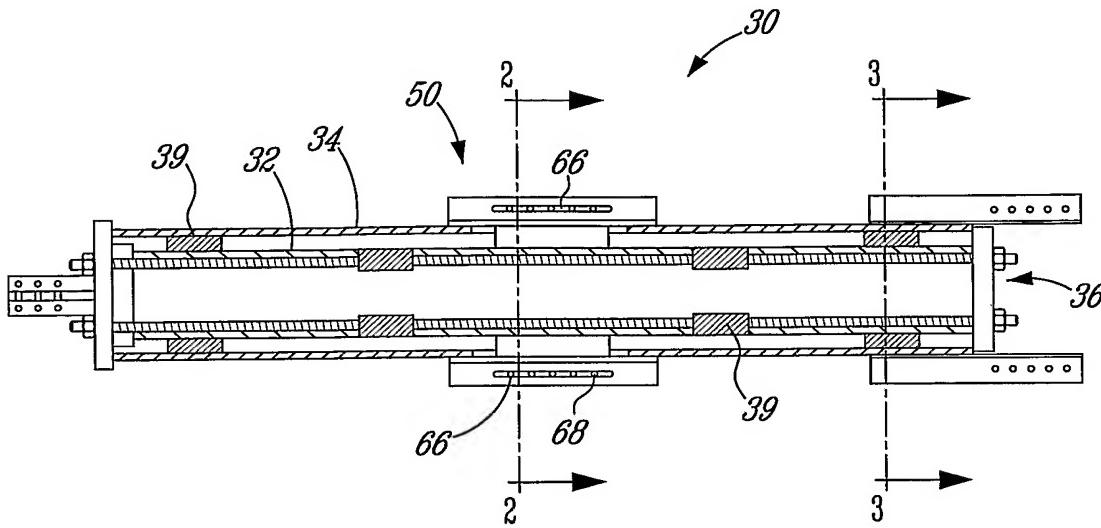
(71) Applicant (for all designated States except US): LA CORPORATION DE L'ECOLE POLYTECHNIQUE DE MONTREAL [CA/CA]; 2900 Edouard-Montpetit Blvd., Montréal, Québec H3C 3A7 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): TREMBLAY, Robert [CA/CA]; 2906 de Chamonix, Montréal, Québec H4R 3B8 (CA). CHRISTOPOULOS, Constantin [CA/CA]; 675 Bedford Park Avenue, Toronto, Ontario M5M 1K4 (CA).

(74) Agents: BRITT, Katherine et al.; BCF LLP, 1100 René-Lévesque Blvd. West, 25th Floor, Montréal, Québec H3B 5C9 (CA).

(54) Title: SELF-CENTERING ENERGY DISSIPATIVE BRACE APPARATUS WITH TENSIONING ELEMENTS



WO 2005/085543 A1

(57) Abstract: The present invention generally relates to a self-centering energy dissipative brace apparatus. A bracing system is often needed to stabilize, strengthen or stiffen structures such as buildings which are subjected to severe or extreme conditions. The brace apparatus may be installed in a structure to dissipate input energy and minimize residual deformations related to exceptional loading imposed on the structure by winds, earthquakes, impacts or explosions. The apparatus integrates self-centering properties and energy dissipative capacities which help minimize structural damage.